



STANDARD STRAIGHT BAR

BAR SIZE	* LOCATION CATEGORY		
	A	B	C
#4	1'-5"	1'-0"	1'-0"
#5	1'-9"	1'-3"	1'-0"
#6	2'-2"	1'-6"	1'-3"
#7	2'-7"	1'-10"	1'-6"
#8	3'-4"	2'-5"	1'-11"
#9	4'-3"	3'-0"	2'-5"
#10	5'-4"	3'-10"	3'-1"
#11	6'-7"	4'-8"	3'-9"

\* LOCATION CATEGORY:

- A- Bars in horizontal layers in top of pour with 12" or more of concrete below them such as in: footings, pier caps, etc.
- B- All bars not in Category A spaced less than 6" apart.
- C- All bars not in Category A spaced 6" or more apart.

Note:

1. When development length is not specified on the Plans, the above dimensions shall be used.
2. These development lengths do not apply when bar is in lightweight concrete or any other strength of concrete.
3. These development lengths only apply where the General Notes indicate "Reinforcing Steel Design,  $f_y = 60$  ksi."
4. If depth of member does not allow bar development length indicated in Categories A, B, and C; then hook shall be added to all bars not conforming, as per D, E, and F per Std. No. M(6.10)-86-180.

APPROVAL	
<i>L. S. Friedman</i> DIRECTOR	OFFICE OF STRUCTURES
DATE: 2/2/90	
REVISIONS	
SHA	FHWA
11-23-93	
1-22-01	
9-20-05	
11-26-07	

FHWA APPROVAL  
DATE:

STATE OF MARYLAND  
DEPARTMENT OF TRANSPORTATION  
STATE HIGHWAY ADMINISTRATION  
OFFICE OF STRUCTURES  
DEVELOPMENT LENGTH DIMENSIONS FOR  
GRADE 60 REINFORCING STEEL  
IN MIX NO. 6 (4500 P.S.I.) CONCRETE  
NON-EPOXY COATED REINFORCING

STANDARD NO. M(6.16)-90-216(L)

SHEET 1 OF 3



MISCELLANEOUS